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RESPONSE UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
GROUP ART UNIT 2174

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application. No:	09/742,523	§
Filed:	December 20, 2000	§
Inventor(s):		§
	Steven W. Rogers and Jason S. King	§
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		§
Title:	System and Method for Accessing Registers of a Hardware Device in a Graphical Program	§
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		§
		§

Examiner:	Ke, Peng
Group/Art Unit:	2174
Atty. Dkt. No:	5150-38200

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, Alexandria, VA 22313-1450, on the date indicated below.

Jeffrey C. Hood

Signature — August 22, 2005 (Date)

REQUEST FOR PRE-APPEAL BRIEF REVIEW

ATTN: BOX AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellant requests review of the rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal. The review is requested for the reason(s) stated below.

Appellant is in receipt of the Office Action mailed May 20, 2005. Claims 1-48 remain pending in the present case. Reconsideration of the present case is earnestly requested in light of the following remarks. Please note that for brevity, only the primary arguments directed to the independent claims are presented, and that additional arguments, e.g., directed to the subject matter of the dependent claims, will be presented if and when the case proceeds to Appeal.

Claims 1, 3, 5-11, 13-16, 36, 37, 39-43, and 45-48 were rejected under 35 U.S.C. 103(a) as being unpatentable over McKaskle et al. (U.S. Patent No. 5,481,741, hereinafter "McKaskle") in view of Lee et al. (U.S. Patent No. 5,214,753, hereinafter "Lee"). Appellant respectfully traverses this rejection.

Claim 1 recites as follows:

> 1. (Previously Presented) A method for creating a graphical program which performs hardware register accesses in a hardware device, wherein the method operates in a computer including a display screen and a user input device, the method comprising:
>
> displaying on the screen a register access node in the graphical program in response to user input; and
>
> configuring the register access node to access one or more hardware registers of the hardware device, wherein said configuring includes accessing a description of the hardware device for information regarding the one or more hardware registers of the hardware device;
>
> wherein, during execution of the graphical program, the register access node is operable to access the one or more hardware registers of the hardware device based on the information.

The Examiner asserts that the element of "configuring the register access node to access one or more hardware registers of the hardware device" is taught by McKaskle in Fig. 99 and Col. 49, lines 49-56. Appellant disagrees.

Fig. 99 illustrates a While loop structure. A block diagram can be placed inside the While loop, and the While loop executes the block diagram inside it for one or more iterations until a Boolean value passed to the conditional terminal of the While loop is False (Col. 48, lines 31-42). As explained in the cited passage at Col. 49, users can create local variables referred to as "shift registers" to transfer values from one iteration of the While loop to the next by popping up on the left or right loop border and selecting "Add Shift Register" from the pop-up menu. The shift register contains a pair of terminals directly opposite each other on the vertical sides of the loop border. Data can be passed from the block diagram inside the While loop to the shift register terminal on the right side of the loop border, e.g., by connecting a wire from an output terminal of a node in the block diagram inside the While loop to the right shift register terminal. The data passed to the right shift register terminal is then shifted so that it is available for use in the next iteration of the loop, via the shift register terminal on the left side of the loop border. The left shift register terminal can be wired to an input terminal of a node in the block diagram

inside the While loop to cause the node to receive the data from the previous iteration of the loop.

Thus, as McKaskle states, "shift registers (available for While Loops and For Loops) are local variables that transfer values from one iteration to the next" (Col. 49, lines 34-36). Thus, a shift register is essentially a software variable, which is simply not the same as a hardware register of a hardware device.

Claim 1 further recites that configuring the register access node to access the one or more hardware registers of the hardware device includes "accessing a description of the hardware device for information regarding the one or more hardware registers of the hardware device". This element of the claim further clarifies that the one or more hardware registers referred to in claim 1 are not the same as software variables. Furthermore, Appellant disagrees with the Examiner's assertion that this element of the claim is taught by Lee at Col. 13, lines 1-27. The cited portion of Lee relates generally to the use of a register 260 to store a horizontal position value used in an equation. There is nothing at all in the cited portion regarding accessing a description of a hardware device for information regarding one or more hardware registers of the hardware device.

Claim 1 further recites, "wherein, during execution of the graphical program, the register access node is operable to access the one or more hardware registers of the hardware device based on the information." The Examiner asserts that this element of the claim is taught by McKaskle at Col. 26, lines 2-27. The cited portion relates to a sequence structure. A user can place multiple diagrams inside the border of the sequence structure, which are executed in sequence during execution of the graphical program (Col. 25, lines 45-52). McKaskle teaches that "input registers" are provided to collect input data for the sequence structure. Appellant respectfully submits that the sequence structure is a software construct, and the "input registers" referred to in this context are essentially software variables that store data passed to the sequence structure from other nodes in the graphical program, similarly as described above with respect to the shift registers of While loop structures. Thus, the cited portion of McKaskle does not teach accessing one or more hardware registers of a hardware device during execution of a graphical program. Furthermore, Appellant notes that the input registers of a sequence structure are not the same as the shift registers of a While loop, and thus, the Examiner has not been consistent in

which elements of McKaskle are being asserted as equivalent to the "one or more hardware registers of a hardware device" recited in claim 1.

Thus, for at least the reasons provided above, Applicant submits that McKaskle and Lee, taken either singly or in combination, do not teach numerous elements of claim 1, and thus, claim 1 and those claims dependent thereon are allowable over the cited art. Inasmuch as the other independent claims recite similar elements as claim 1, Applicant submits that these claims and the claims dependent thereon are also allowable. Furthermore, many of the dependent claims include further limitations not taught or suggested by McKaskle or Lee. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

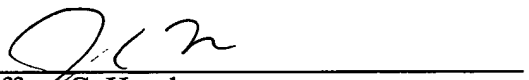
In light of the foregoing amendments and remarks, Applicant submits the application is now in condition for allowance, and an early notice to that effect is requested. If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-38200/JCH.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

☒ Notice of Appeal

Respectfully submitted,



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Date: 8/22/2005 JCH/JLB